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## (54) Differential phase shift keying spread spectrum packet signal detection

(57) For use in a direct sequence spread spectrum ("DSSS") receiver adapted to receive a differential phase shift keyed ("DPSK") packet on a channel, the DPSK packet having a training preamble and a data portion, a system to improve detection of the packet under degraded channel conditions, comprising: (1) a detection circuit that derives phase information from symbols in the packet and a weight that is a function of

an estimated power profile for the channel and (2) a computation circuit that computes a weighted average for the phase information using the weight, the weighted average being power profile-based to allow the receiver to detect the data contained in the packet more reliably under the degraded channel conditions.

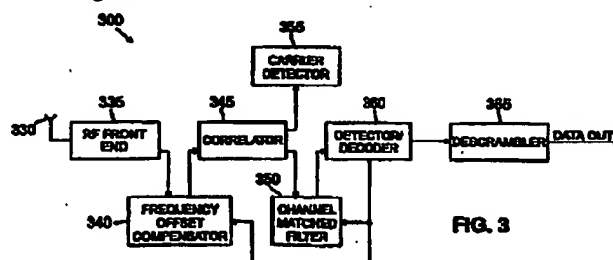


FIG. 3

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